

## **AC-DC ADAPTER AND BATTERY CHARGER INTEGRATION SCHEME**

### Abstract of Disclosure

5           In a method and system for converting an alternating current (AC) input to a direct current (DC) output, an AC-DC adapter includes a rectifier module operable to receive the AC input and generate a first DC output. The AC-DC adapter includes a buck converter module operable to receive the first DC output and generate the DC output responsive to a control signal. A controller module, included in the AC-DC  
10 adapter is operable to receive a first feedback signal input indicative of a target voltage required by a load and a second feedback signal input indicative of the DC output to generate the control signal. The controller module adjusts the control signal responsive to the first and second feedback signal inputs so that the DC output is maintained to be within a predefined range of the target voltage.